

Polar Orbiting Meteorological Satellite Systems

STATUS OF RUSSIAN POLAR ORBITING METEOROLOGICAL SATELLITE SYSTEM

Summary and purpose of the WP

The first polar orbiting satellite Meteor-3M N1 of the new series of meteorological satellites was launched on 10 December 2001. METEOR-3M N1 operates on circular sun-synchronous morning orbit.

Action proposed: no action required.

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The payload of Meteor-3M N1 includes the scanning instrument MR-2000M (0.5-0.8 μm), scanning IR radiometer KLIMAT (10.5-12.5 μm), MW scanning radiometer MIVZA (5 channels in the range 20-94 GHz), MW conical scanning radiometer MTVZA (20 channels in the range 18.7-183.3 GHz), high resolution scanning instrument MSU-E (3 channels in the range 0.5-0.9 μm with spatial resolution 38 m), UV – band instrument SFM-2, complex of heliogeophysical instruments (KGI-4C, MSGI-5EI) and sensor SAGE – III (USA, NASA).

Radiometers MIVZA and MTVZA have limited capabilities, due to technical problems related to these instruments scanning mode.

Due to failure of the on-board 466 MHz transmitter, the satellite has limited capabilities for MR-2000M and KLIMAT data direct broadcast.

Meteor-3M N1 data direct broadcast in raw format is carried out in 1.7 and 8.2 GHz bands.